EXTRA WORK BILL - FILE TRANSFER OPTION

This document provides detailed information concerning the FTP option for submission of electronic extra works bills. The following sections are included in this document.
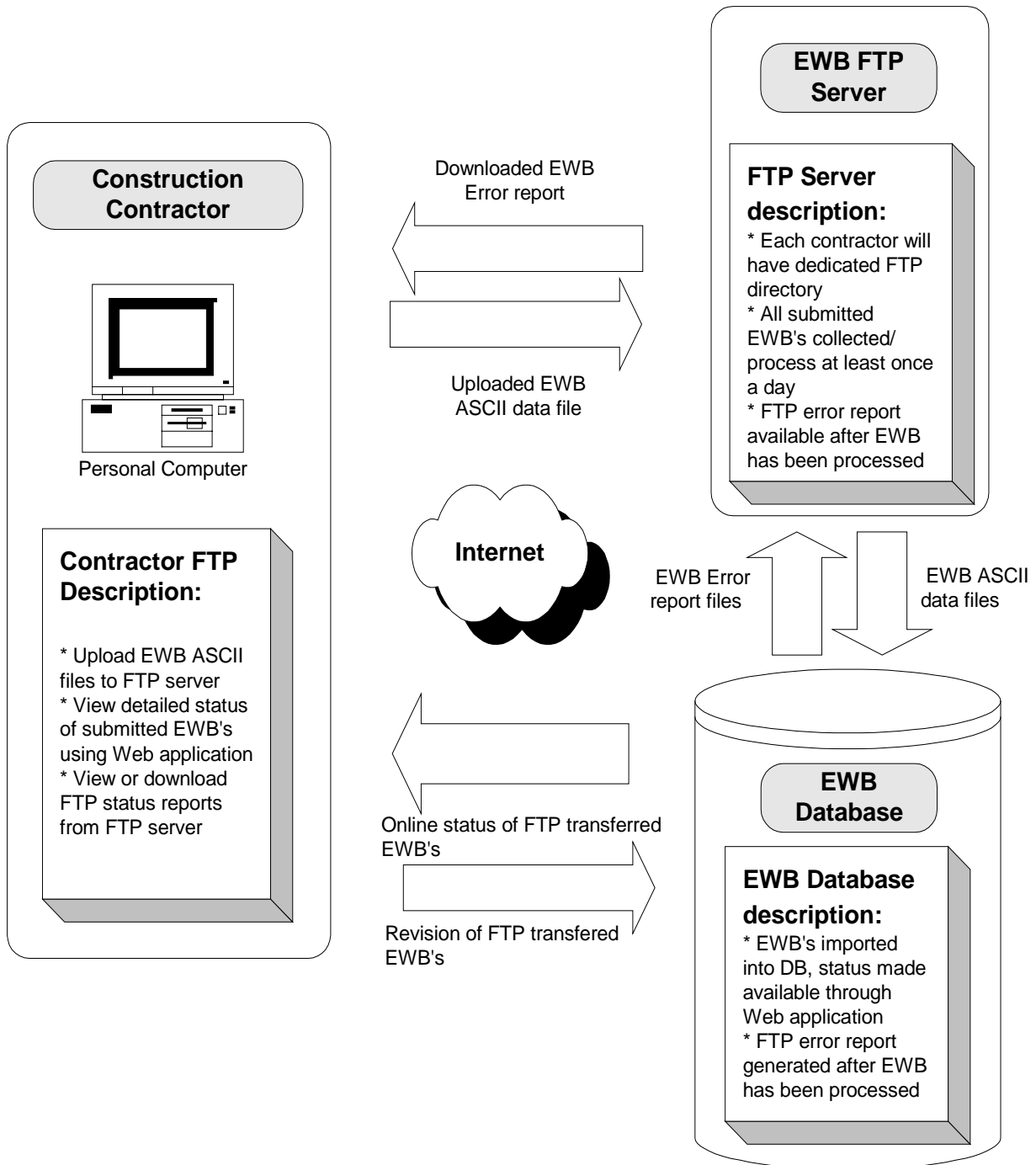
I. EWB FILE TRANSFER PROTOCOL (FTP) PROCESS OVERVIEW

The File Transfer Protocol (FTP) Option allows contractors to transfer electronic versions of Extra Work Bill files to an FTP server at Caltrans. There, the bills are collected, validated and loaded into the EWB database. Once Extra Work bills have been verified for proper format and validated for correct content, they will be available for contractor review/revision through the web-based online EWB system. If a format or content error does occur, an electronic error report will be generated and sent back to the contractor's FTP directory for review and/or revision.

The FTP Process (Overview) diagram describes a high level overview of the FTP process. This diagram includes:

- A general layout of all major components of the EWB FTP system – This includes computer workstations used by construction contractors to electronically transfer EWB's to the EWB FTP server; The EWB FTP server used to receive contractor submitted EWB files; The EWB database server used as a central repository for all EWB data;
- A basic description of each major component and primary functions.
- An overall high-level description of data flows between each component.
- Physical description of interfaces and interaction between each of the systems major components.

FTP Process (Overview)

EWB FTP Server

FTP Server description:
* Each contractor will have dedicated FTP directory
* All submitted EWB's collected/ process at least once a day
* FTP error report available after EWB has been processed

Construction Contractor

Downloaded EWB Error report

Uploaded EWB ASCII data file

Personal Computer

Internet

EWB Error report files

EWB ASCII data files

Contractor FTP Description:

* Upload EWB ASCII files to FTP server
* View detailed status of submitted EWB's using Web application
* View or download FTP status reports from FTP server

Online status of FTP transferred EWB's

Revision of FTP transfered EWB's

EWB Database

EWB Database description:
* EWB's imported into DB, status made available through Web application
* FTP error report generated after EWB has been processed

II. EWB FTP CERTIFICATION REQUIREMENTS

Prior to being granted access to the EWB system and receiving a secure directory on the Caltrans FTP server, a contractor must complete the Caltrans EWB FTP Certification process. The purpose of this process is to ensure the contractor has the ability to correctly format, transfer, and status EWBs.
The following section describes what will be required for each EWB FTP user in order to participate in electronic submission of EWB data files.

1- EWB FTP server and EWB database server account/password established for each company
2- EWB database logon-ID used to access EWB web-based client application
3- Completed EWB account request information form including : company, location, number of users and list of contract numbers to be used for the pilot.
4- EWB FTP users must be able to provide (through a customized Billing system or standard word-processing software) a standard ASCII text file that contains a predefined format for EWB data in an electronic format. This file will be tested for format and content correctness before it is used in production.
5- Prospective EWB FTP users will be required to contact the FTP certification team (can be arranged as a conference call) to complete FTP certification process.
6- Once the completed EWB account request form has been forwarded to the HQ administrator, user profile information from the form will be entered into the EWB system.
7- EWB FTP users must meet the following hardware requirements:

Hardware Requirements:
a)   IBM compatible personal computer (PC) capable of running Windows 95/98 or NT
b)   PC must have a minimum of 64 megabytes of memory
c)   PC must have 100 megabytes of free disk space available
d)   Minimum screen resolution is 16 color (800x600) VGA
e)   PC modem or equivalent device (used to connect a PC to the internet)

8- EWB FTP users must meet the following software requirements:

Software Requirements:
a)   FTP client utility (Netscape Navigator can be used to FTP files)   *
b)   Word processing utility capable of creating ASCII text file *
c)   Windows 95/98 or NT
d)   Netscape Navigator (version 4.05 or greater)
e)   Jinitiator (Browser Plug-in)
f)   Adobe Acrobat (version 4.0 or greater)
* Automated Billing System with same functionality can be used in place

9- EWB FTP users must provide a connection with a minimum of 56 kps to the internet (standard ISP services)
10- EWB FTP users must have a valid construction contract that has already been awarded by Caltrans.
11- EWB FTP users must attend a combined EWB web-application training and FTP user training class.
12- EWB FTP users will be expected to have demonstrated successfully submitting new bills to the EWB FTP server, retrieving any error files generated, and making appropriate corrections to any errors and successfully re-submitting those bills for further processing.
13- EWB FTP users must be working on a contract with an approved RE (who has successfully completed EWB training for RE's).

14- EWB FTP users must have basic knowledge of using the FTP utility to send and receive files or the basic functionality of the system used to transfer files between the contractor's billing system and the EWB system.

15- Each FTP user will be required to have an FTP technician who is knowledgeable enough to work with EWB support staff to resolve technical problems with the FTP process.

16- FTP users should submit only one FTP file per day. This will insure that the contractor will not inadvertently overwrite an FTP data file with the same filename that already exists on the FTP server.

III.   EWB FTP CERTIFICATION PROCESS

The following section describes the steps involved in becoming an EWB FTP user.

Step1:   Contact District application administrator, local Resident Engineer (RE) or Caltrans website to obtain package of EWB FTP information which includes an explanation of the FTP process, EWB account request forms, FTP file format description, and instructions for using the FTP process. Each potential FTP participant can contact the Caltrans EWB FTP certification team to answer any questions about the FTP information package.

Step 2:   Once the EWB account request forms have been completed, they are forwarded to District application administrator. At this point, all FTP participants must make a decision about whether they wish to use the FTP process to submit EWB's or the online web-application (using both is also an option). Both the District application administrator and EWB FTP certification team must agree that the potential FTP participant meets minmum requirements for the FTP process.

Step 3:   EWB account request forms will indicate which training classes contractors wish to attend. Each contractor along with selected staff will be forwarded a scheduled by the training coordinator for each class. The HQ training coordinator will begin the process of training class registration.

Step 4:   HQ FTP certification team will coordinate with the contractor's FTP technician to verify requirements for the FTP process. The team will also coordinate with the FTP technician to establish testing procedures and identify contract data to be used during certification testing. The certification team will make sure that the contractor meets the minimum hardware, software and communication requirements before the contractor attends FTP training classes.

Step 5:   Once the RE and contractor have been trained to use the FTP process, they will be scheduled by the certification team for certification testing. The contractor will work with the certification team to identify contract data to be included in the testing.

(This section describes the steps involved in the FTP certification process)

Step 6:   The certification test will consist of an actual transfer and retrieval of EWB data files. The contractor will be required to demonstrate the ability to electronically transfer extra work bill data files to the EWB FTP server. They will also be required to demonstrate to ability to retrieve EWB error reports from the FTP server. After the contractor has had an opportunity to review the EWB error report, they will be required to make corrections and re-send corrected EWB data files.

Step 7:   Core pieces of the test ensure that the contractor can successfully logon to the FTP server, send and receive EWB data files from and to the FTP server, retrieve and understand error files and make corrections before re-sending to the FTP server.

Step 8:   Once the contractor has successfully completed the certification testing, they will be issued a production EWB web-application and FTP account id and password. The contractor will also

receive a letter of acknowledgement certifying that they are able to start sending EWB's using the FTP process.

IV. EWB FTP CERTIFICATION PROCESS CHECKLIST

The following section provided a checklist of items needed to complete FTP certification.

Complete? Y(es) or N(o)	Description	Date Completed
	Pre-Certification Activities	
	1. Submission of a valid EWB account request information form	
	2. Retrieval and understanding of EWB information package	
	3. Agreement with an approved RE to work collaboratively on submission and approval of EWB for a designated contract.	
	4. Confirmation that contractor wishes to participate in FTP process and agreement from District application administrator and certification team that contractor meets requirements.	
	Contractor Demonstration of Successful Completion	
	5. Conformance to minimum hardware requirements	
	6. Identification and designation of an FTP technical support person in contractor organization who has successfully completed FTP and EWB Entry training for contractors.	
	7. Conformance to minimum software requirements	
	8. Agreement with an approved RE to work collaboratively on submission and approval of Extra Work Bills for a designated contract	
	9. Demonstration of connection to the Internet (standard ISP services)	
	10. Identification of a minimum of one valid construction contract that is resident in the Construction system	
	11. Demonstration of the ability to submit new Extra Work Bills to the EWB FTP server	
	12. Demonstration of ability to retrieve EWB error reports from the FTP server	
	13. Demonstration of ability to execute corrections to errors based on receipt of an error report and resubmit bills for system processing	
	14. Demonstrate understanding of the EWB process through the entire submission process; this includes: (For details see below) • Retrieval of the EWB • Submission of EWB • Correction of the EWB • Administration of Status Reports	

V. EWB FTP FAQ's (Frequently asked questions)

This section provides a list of frequently asked questions about the FTP process

1.   Using the FTP process, how will invoices (materials, equipment, etc.) be handled? Will a scanner be required to create electronic copies of invoices to be submitted along with the electronic EWB data file? *Answer* - No, all invoices will be handled in the same way they are currently handled. Contractors will print EWB's and attach copies of invoices to the EWB to be submitted to the RE.

2.   Will Sub-contractors be allowed to use the FTP process to submit EWB's? *Answer* – It will be up to the primary contractor to identify those users who will be authorized to submit EWB's for the prime contractor. Each contractor will be assigned only one FTP account and directory in which to submit all EWB's.

3.   How does my automated Billing system work with the Caltrans FTP process? *Answer* – During the certification process, each contractor will be required to demonstrate the ability to send and retrieve files from the FTP server using whichever software solution accomplishes this successfully. A detailed explanation of how an automated Billing system accomplishes the FTP send and receive action should be provided by the developer to Caltrans.

4.   Does the EWB FTP server guarantee file security?   *Answer* – Yes, the EWB FTP server is a fully-secured environment that provides maximum protection against fraudulent or unauthorized access of a contractor's data files. However, the contractor is solely responsible for security of access to their system and account passwords.

5.   Does the EWB FTP process allow me (the contractor) to use mixture of methods for submitting EWB's? *Answer*- Yes, the EWB FTP process will allow contractors to submit (and make corrections to) bills using both the EWB web-based data-entry application and also allow contractors to continue submitting hard copy EWB forms to the RE for input. However, it is recommended that contractor use the web-application or FTP process in preparation for eventual phase out of the manual system.

VI.   EWB FTP FILE FORMAT OVERVIEW

The following section contains a detailed description of the Extra Work Bill FTP data file format used by construction contractors to electronically transfer Extra Work Bill data files to Caltrans EWB FTP server. The FTP process involves construction contractors transferring electronic versions of Extra Work Bill files to an FTP server where bills are collected, validated and loaded into a centralized EWB database. Before an electronically transferred EWB data file can be successfully loaded into the EWB database, it must first be verified and validated for proper format and content. The following EWB FTP file format chart (listed below) contains a detailed description of each field element used in the EWB data file. This FTP file format description should be used as the model for all EWB data files electronically transferred to the EWB FTP server. Once Extra Work Bill data files have been verified for proper format and validated for correct content, they will be available for contractor review/correction through the web-based online EWB system. If a format or content error does occur, an electronic error report will be generated and sent back to the contractor's FTP directory for review and/or correction.

VII. EWB FTP FILE FORMAT DESCRIPTION

The following chart describes the format of the EWB data file contractors will be required to send to the Caltrans EWB FTP server.

Record Type	Column Name	Type	Lengt	Format	Posit	Requ	Description

			h		ion	ired	
EWB Header	DISTRICT	TEXT	2	99	1	2	Yes	Caltrans District Identification.
	EA	TEXT	6	Uppercase	3	8	Yes	Expenditure Authorization.
	CCO	TEXT	3	999	9	11	Yes	Contract Change Order number. Ties this record to a CCO.
	CONTR REPORT NO	TEXT	6	Uppercase	12	17	Yes	Contractor's report number.
	CONTR REVISION NO	TEXT	2	99	18	19		
	RECORD TYPE	NUMBER	1	9	20	20	Yes	Unique Identifier from the record type. Use '1'.
	SUBMIT DATE	DATE	8	mmddyyyy	21	28		Date the Contractor submits the EWB.
	PERFORMED DATE	DATE	8	mmddyyyy	29	36		Date the Contractor performed the work.
	CONTR JOB NO	TEXT	6	Uppercase	37	42		Contractor's job number.
	PAY METHOD	TEXT	2	99	43	44	Yes	Pay Method which must match the payment of the CCO.
	BRIDGE	TEXT	1	'Y','N','T'	45	45		Bridge Switch - **B** indicates that this is a bridge work item, **T** indicates that this is a toll work item.
	FLAGGING	TEXT	1	'Y','N'	46	46		Flagging switch - indicates that this bill is for traffic control
	SUB MARKUP	TEXT	1	'Y','N'	47	47		Sub contractor markup for administration on work done by subcontractor.
	RW DELAY	TEXT	1	'Y','N'	48	48		Right-of-way delay switch - indicates that this bill is for equipment that was idle due to a delay in the work.
	PARTNER	TEXT	1	'Y','N'	49	49		Partnering switch - indicates that this bill is for partnering expenses.
	PERFORMED BY	TEXT	50		50	99		Work performed by - indicates who did the work.
	DESC OF WORK	TEXT	50		100	149		Description of work done.
	LABOR_SUR_REG	NUMBER	2	99	150	151		
	USER_LOGIN_ID	TEXT	30		152	181	Yes	Caltrans assigned database login id for the company.
Record Type	**Column Name**	**Type**	**Length**				**Required**	**Description**
EWB EQUIPMENT	DISTRICT	TEXT	2	99	1	2	Yes	Caltrans District Identification.
	EA	TEXT	6	Uppercase	3	8	Yes	Expenditure Authorization.
	CCO	TEXT	3	999	9	11	Yes	Contract Change Order number. Ties this record to a CCO.
	CONTR REPORT NO	TEXT	6	Uppercase	12	17	Yes	Contractor's report number.
	CONTR REVISION NO	TEXT	2	99	18	19		
	RECORD TYPE	NUMBER	1	9	20	20	Yes	Unique Identifier from the record type. Use '2'.
	LINE NO	TEXT	2	99	21	22	Yes	Line number from input form. May be from 4 to 23.
	EQUIP ID	TEXT	8	Uppercase	23	30	Yes	Equipment identification - assigned by the contractor.
	EQUIP CLASS	TEXT	5	Uppercase	31	35		Equipment class.
	EQUIP MAKE	TEXT	4	Uppercase	36	39		Equipment make.

Record Type	Column Name	Type	Length				Required	Description
	EQUIP MODEL	TEXT	7	Uppercase	40	46		Equipment model.
	ATTACH CODE1	TEXT	2	Uppercase	47	48		Attachment code used to look up attachment rate.
	ATTACH CODE2	TEXT	2	Uppercase	49	50		Attachment code used to look up attachment rate.
	REG HOURS	NUMBER	5	99.99	51	55		Regular hours worked.
	OT HOURS	NUMBER	5	99.99	56	60		Overtime hours worked.
Record Type	**Column Name**	**Type**	**Length**				**Required**	**Description**
EWB MATERIAL	DISTRICT	TEXT	2	99	1	2	Yes	Caltrans District Identification.
	EA	TEXT	6	Uppercase	3	8	Yes	Expenditure Authorization.
	CCO	TEXT	3	999	9	11	Yes	Contract Change Order number. Ties this record to a CCO.
	CONTR REPORT NO	TEXT	6	Uppercase	12	17	Yes	Contractor's report number.
	CONTR REVISION NO	TEXT	2	99	18	19		
	RECORD TYPE	NUMBER	1	9	20	20	Yes	Unique Identifier from the record type. Use '3'.
	LINE NO	TEXT	2	99	21	22	Yes	Line number from input form. May be from 24 to 33.
	VENDOR NAME	TEXT	30		23	52		Name of vendor.
	INVOICE NO	TEXT	10	Uppercase	53	62		Invoice number.
	INVOICE DATE	DATE	8	mmddyyyy	63	70		Invoice date.
	INVOICE DESC	TEXT	18		71	88		Description of material or charges on invoice.
	UNITS	NUMBER	10	999999.999	89	98		Number of units billed.
	COST	NUMBER	9	999999.99	99	107		Cost per unit.
Record Type	**Column Name**	**Type**	**Length**				**Required**	**Description**
EWB LABOR	DISTRICT	TEXT	2	99	1	2	Yes	Caltrans District Identification.
	EA	TEXT	6	Uppercase	3	8	Yes	Expenditure Authorization.
	CCO	TEXT	3	999	9	11	Yes	Contract Change Order number. Ties this record to a CCO.
	CONTR REPORT NO	TEXT	6	Uppercase	12	17	Yes	Contractor's report number.
	CONTR REVISION NO	TEXT	2	99	18	19		
	RECORD TYPE	NUMBER	1	9	20	20	Yes	Unique Identifier from the record type. Use '4'.
	LINE NO	TEXT	2	99	21	22	Yes	Line number from input form. May be from 34 to 53.
	CRAFT ID	TEXT	5	Uppercase	23	27		Labor craft code.
	F INITIAL	TEXT	2		28	29		Laborer's first name initial.
	LAST NAME	TEXT	10		30	39		Laborer's last name.
	REG HOURS	NUMBER	4	99.9	40	43		Regular hours worked.
	REG RATE	NUMBER	6	99.999	44	49		Rate for regular hours worked.
	OT HOURS	NUMBER	4	99.9	50	53		Overtime hours worked.
	OT RATE	NUMBER	6	99.999	54	59		Rate for overtime hours worked.
	SUB UNITS	NUMBER	5	99.99	60	64		Subsistence units for this laborer.
	SUB RATE	NUMBER	5	99.99	65	69		Subsistence rate.
Record Type	**Column Name**	**Type**	**Length**				**Requ**	**Description**

			h				ired	
EWB OTHER	DISTRICT	TEXT	2	99	1	2	Yes	Caltrans District Identification.
	EA	TEXT	6	999999	3	8	Yes	Expenditure Authorization.
	CCO	TEXT	3	999	9	11	Yes	Contract Change Order number. Ties this record to a CCO.
	CONTR REPORT NO	TEXT	6		12	17	Yes	Contractor's report number.
	CONTR REVISION NO	TEXT	2	99	18	19		
	RECORD TYPE	NUMBER	1	9	20	20	Yes	Unique Identifier from the record type. Use '5'.
	LINE NO	NUMBER	2	99	21	22	Yes	Line number from input form. Can only be 54.
	DESCRIPTION	TEXT	41		23	63		Description of other charges subject to labor markup.
	AMOUNT	NUMBER	9	999999.99	64	72		
	TRAVEL UNITS	TEXT	5	99.99	73	77		Travel units.
	TRAVEL RATE	NUMBER	5	99.99	78	82		Travel rate.

VIII. EWB FTP FILE – FIELD RULES

The following tables contain detailed rules to be applied to the EWB FTP file.

Field Name	Rule
EWB Input/EWB Tab	
Contract Number (District & EA)	District and EA. Required field(s). District must be numeric from 01 to 12. EA can be any alphanumeric character 0 to 9 or A through Z. Must be validated from CCIS Contract table. Contractors limited to only the contract they are assigned.
CCO Number (CCO)	Required field. Must be numeric.
Contractor Report No. (Contr_report_no)	Any characters. Force Uppercase.
Revision No	Display only. Field is incremented when the user 'Re-Submits' and EWB.
Status of EWB	Display only. Status description of the EWB
Status Date	Display only. Date of the latest status.
RE Comments	Display only. Comments from the RE, usually regarding a rejection.
Total Amount	Display only. From CAS, after EWB is Accepted by CAS.
Various Dates	Checkbox. Used if work was done on more than one day.
Date Performed (performed_date)	Format mm/dd/yyyy. Date the work was performed. Use various if the pay method is lump-sum or unit-price and equipment and labor bill are not present.
Contractor Job No. (contr_job_no)	Any characters. Force Uppercase.
Payment Method (Pay_method)	Required field. Choose from pick list. Values: +EWFA (01), +EWLS (02), +EWUP (03), +ACFA (04), +ACLS (05), +ACUP (06), -ACLS (11) & -ACUP (12). The values in parens are the values to be stored in the table.
Labor Regular Surcharge	Required field.
BR SW (bridge)	"Y" for Bridge work. A "T" indicates Toll Bridge work and a 10% markup will be applied to Equipment and 25% markup applied to Labor. "N" is the default. 15% equipment markup and 33% labor markup are the defaults.
%50 Flag (flagging)	"Y" if pay is for 50% flagging. "N" is the default.
Sub Markup (sub_markup)	"Y" if 5% sub contractor markup is involved. "N" is the default.
R/W Delay (rw_delay)	"Y" to indicate R/W delay/ "N" is the default.
Partner Switch (partner)	"Y" to indicate this bill is for Partnering cost billing. "N" the default.
Work Performed By (performed_by)	Any characters.
Desc of Work Segment (desc_of_work)	Any characters.
* Contract Number	Contract Key from CCIS Contract table.
* EWB Number	EWB key. Sequentially generated for each EWB fixed record.
* System Date	Current system date the EWB Fixed record is created or updated.
* User ID	User Identification of the person who created or updated the EWB Fixed record.

Field Name	Rule
EWB Input/Equipment Tab	
Line No	Display only. Line numbers 4 through 23 for CAS out file.
Equip ID Number (equip_id)	Required field. Force Uppercase.
Equipment Class	Required field. Force Uppercase.

(equip_class)	
Equipment Make (equip_make)	Required field. Force Uppercase.
Equipment Model (equip_model)	Required field. Force Uppercase.
Attach Code1 (attach_code1)	Optional field. There can be two attachments for each piece of equipment. Force Uppercase.
Attach Code2 (attach_code2)	Optional field. There can be two attachments for each piece of equipment. Force Uppercase.
Regular Hours (reg_hours)	Required if OT Hours = 0. Must not exceed 8 hours unless Various Dates is checked.
Overtime Hours (ot_hours)	Required if Reg Hours = 0.Must not exceed 16. Not allowed if the R/W Delay is set to "Y".
* OT Factor	Default is 0.
* Delay Factor	Default is 0.
* Rate	Default is 0.
* Markup	Default is 0.
* Amount	Default is 0.
* Contract Number	Contract Key from the EWB Fixed record.
* EWB Number	EWB key from the EWB Fixed record.
* System Date	Current system date the EWB Equipment record is created or updated.
* User ID	User Identification of the person who created or updated the EWB Equipment record.
EWB Input/Material Tab	
Line No	Display only. Line numbers 24 through 33 for CAS out file.
Vendor Name (vendor_name)	Required field. Force Uppercase.
Invoice No. (invoice_no)	Optional field. Force Uppercase.
Invoice Date (invoice_date)	Optional field. Format mm/dd/yyyy.
Invoice Description (invoice_desc)	Optional field. Force Uppercase.
Units (units)	Required field.
Unit Cost or Net Pay (cost)	Required field.
* Contract Number	Contract Key from the EWB Fixed record.
* EWB Number	EWB key from the EWB Fixed record.
* System Date	Current system date the EWB Material record is created or updated.
* User ID	User Identification of the person who created or updated the EWB Material record.

Field Name	Rule
EWB Input/Labor Tab	
Line No	Line numbers 34 through 53 for CAS out file.
Craft ID (craft_id)	Required field. Force Uppercase.
Labor Initial (f_initial)	Required field. Force Uppercase.
Labor Last Name (last_name)	Required field.
Labor Reg Hours (reg_hours)	Required if Reg Rate > 0. Either Reg Hours, OT Hours, or Sub Hours must be > 0.
Labor Reg Rate (reg_rate)	Required if Reg Hours > 0.
Overtime Hours (ot_hours)	Required if OT Rate > 0.
Overtime Rate (ot_rate)	Required if OT Hours > 0.
Subsistence Units (sub_units)	Required if Sub Rate > 0.
Subsistence Rate (sub_rate)	Required if Sub Hours > 0.
* Reg Surcharge	

* OT Surcharge	
* Markup	
* Amount	
* Contract Number	Contract Key from the EWB Fixed record.
* EWB Number	EWB key from the EWB Fixed record.
* System Date	Current system date the EWB Labor record is created or updated.
* User ID	User Identification of the person who created or updated the EWB Labor record.
EWB Input/Other Tab	
Line No	Line number 54 for CAS out file.
Description (description)	Required field.
Amount (amount)	Either Amount or Travel Expense Units must be > 0.
Travel Expense Units (travel_units)	Optional field.
Travel Expense Rate (travel_rate)	Optional field.
* Contract Number	Contract Key from the EWB Fixed record.
* EWB Number	EWB key from the EWB Fixed record.
* System Date	Current system date the EWB Other record is created or updated.
* User ID	User Identification of the person who created or updated the EWB Other rec

* Note: These fields are new for Phase2.

Field Name	Rule
Reqort Request Menu	
Report Name	Pull Down list with two options: EWB Status Report & EWB Detail Report.
Date Range From	Format mm/dd/yyyy. If entered, date must be <= Date Range To and Date Range To is required.
Date Range To	Format mm/dd/yyyy. If entered, date must be >= Date Range From and Date Range From is required. Can default to today's date.
User Name	Required if the user is a Contractor. If Contractor, display the user name and disable the field.
Contract (District, EA)	Validated using LOV on table EWB Fixed. Contractors limited to only the contract they are assigned. Operates the same as the 'Find' function on EWB Input. This includes the next two fields.
CCO	
Contr Report No	
EWB Origination (Oracle, CAS)	At least one checkbox must be checked.
Status (Approved, Rejected, Pending)	At least one checkbox must be checked.

IX. EWB - FTP SUBMISSION INSTRUCTIONS

These instructions cover the entire EWB file transfer process (FTP) from initial installation of required FTP client software to successful submission of an EWB through the internet to the Caltrans Extra Work Bill (EWB) FTP server. There are two parts. The first part of these instructions describes the step-by-step process of installing Netscape Navigator (software to be used in this example as the FTP client). The second part describes the process of using Netscape as the FTP client to transfer extra work bills electronically to the Caltrans EWB FTP server. Any FTP client software can be used to transfer extra work bill files to the EWB server, however, for the purpose of these instructions; Netscape Navigator will be used as the FTP client.

1. If your workstation currently has an FTP client or a recent version of Netscape already installed, the Netscape browser installation (Steps 1,2,3) can be skipped.
2. Before installing any software, network connectivity and sufficient hard disk space for the workstation must be verified. This is Step 1 – Verify Space on the Hard Drive
3. The next part of these instructions involves installation and configuration of the FTP client software (in this example, Netscape will be used as the FTP client). Step 2 – Download Netscape Navigator, Step 3-Install and Configure the Netscape Navigator, Step 4-Verify the Network Connection
4. After successfully installing the FTP client (Netscape) and verifying the network connection, the next step is to use the client to connect to the Caltrans (EWB) FTP server. Step 5-Connect to the EWB FTP Server
5. Move the EWB files to the FTP Server. Step 6-Transfer EWBs to the Caltrans FTP Server
6. Once connected, all EWBs submitted that day would be electronically transferred to the FTP server.
7. If there are errors with an electronically-submitted EWB, a report will be generated and placed in the same directory on the EWB FTP server, where the file was submitted, for the contractor to download, review or print. Step 7- View EWB Error Reports from the FTP Server.
8. If no errors are present, the EWB will be processed normally.

9. Once the EWBs have been transferred successfully, contractors will be able to use the EWB web-based application to view the status of the bill on-line. One advantage of using Netscape as the FTP client is that it can also be used as the browser to run the EWB web-based application.

Netscape Installation

These instructions are specifically developed for using the Netscape Navigator browser (the Caltrans standard for Internet browsers). The following section provides detailed instructions on how to install Netscape's browser for Windows 95, 98 and NT Platforms. If you currently have Netscape version 3.05 or greater, it is not necessary to install Netscape. However, it is recommended that you upgrade to the latest version if there are sufficient resources.

If you install your new software into the Netscape folder that contains your current version of the product, your old version will be overwritten, but you can still use your existing bookmarks, preferences, and settings. If you wish to keep a copy of the old version as a backup, simply create a new folder for the software you are about to install.

Once you see the prompt telling you that installation is complete, go to the folder where you installed your new software. Double-click on the Netscape Navigator Communication application icon to launch your new browser.

Step 1 - Verify Space on the Hard Drive

Before attempting to install any software, it is always recommended to check for adequate disk drive space available to insure a successful installation. If it has already been determined that a copy of the Netscape software or an upgrade is needed, the amount of free disk space required (preferably on the local "C:" drive) is approximately 70 megabytes.

- Using Windows Explorer, highlight the drive where Netscape is going to be installed and press the right-button on your mouse.
- Select Properties. The following window should appear:
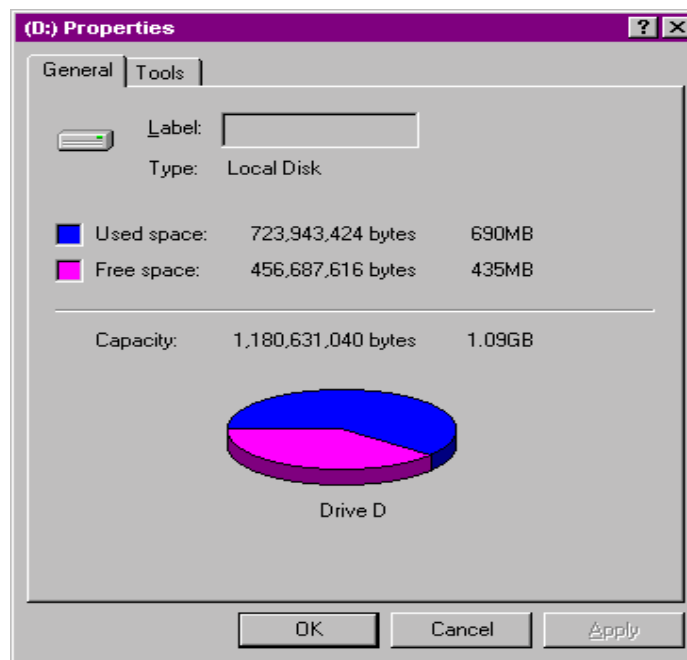
Please Note: A minimum of 70MB of free space is required to install this product.

Connect to the Internet

If you currently have Netscape installed on your workstation, simply find the Netscape Communicator icon on your desktop and double click on the icon to start-up the browser. Go to Page 7 and continue the process from Step 4 – Verify the Network Connection

If you do not have Netscape as your browser, use your usual method to connect to the Internet and follow Steps 2 and 3 here.

Please Note: For workstations without Netscape use Microsoft's Internet Explorer.
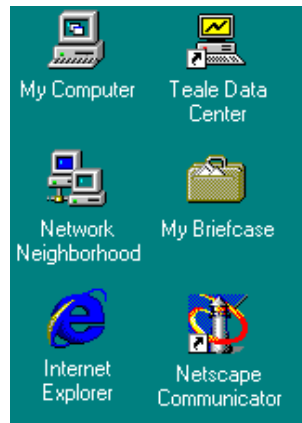
Step 2 - Download Netscape Navigator

Once the browser has been started, enter the Netscape Home Page web-site URL (Universal Resource Locator) "http://www.netscape.com/computing/download/" in the URL data-entry text box.
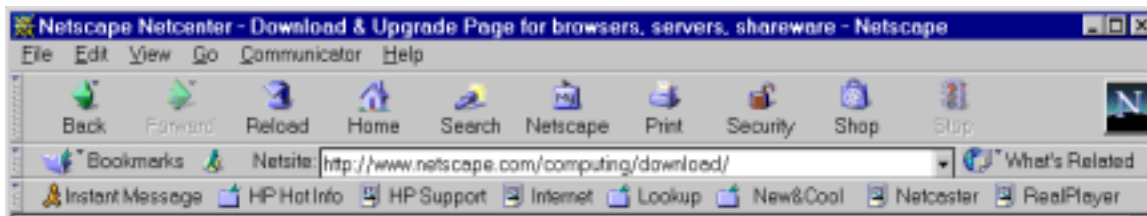
If you are currently using Windows 3.1 as your operating system, download the 16-bit version of the Netscape browser. If you are using Windows 95, 98 or NT, download the 32-bit version for Windows. On the download page, identify the operating system of the computer on which you'll install the software. Then choose the language in which you want the menu bars, buttons, and help text to appear in the product. And lastly, choose the version number of the software.

The download page will allow you to download the latest version of the Netscape Communicator to your workstation. Select the (Windows 95/98/NT) version by highlighting the Windows 95/98/NT text with your mouse and clicking.

Download the New Netscape Communicator 4.72

English, 56-bit standard encryption, including Navigator

Full Download of Communicator 4.72
If you're new to Communicator, choose either the Windows 95/98/NT or Mac PowerPC (OS 7.6.1 or later) version.

After you've entered all required information, click the Download button. You will be taken to a download page. If you lose your connection while downloading a file and you are running Netscape Communicator, click the Download button again. This will allow Communicator to pick up downloading where it left off.

- Save **sd_cc32e472en.exe** to the Desktop.
- While connected to the Internet, double click on the **sd_cc32e472en.exe** to begin installation process.

Step 1 - Select Download Location   **Step 2 - Start Download**

Netscape Communications ▼   Download

As you download your Netscape product, be sure to note the folder to which you are downloading the software. It is recommended that the Netscape installation file be downloaded directly to the desktop. In the "Save As" dialog box navigate to the Desktop folder by highlighting desktop menu option and double clicking. To start the download process, click on the "Save" button.
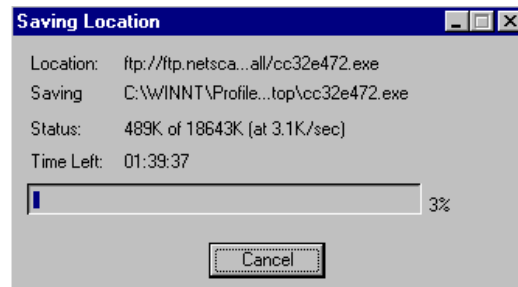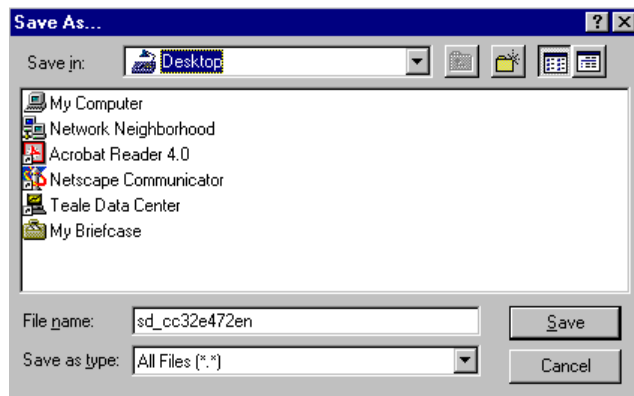
After the download is complete, find the folder the file was downloaded into and double-click on the "sd_cc32en472en" file. At the dialog box asking whether you want to install the software, click Yes. You will be taken to the installer program.

Step 3 – Install and Configure the Netscape Navigator

The following section describes a step-by-step process for installing Netscape Navigator Internet browser. This software will be used as the FTP client to transfer electronic EWB files from the client workstation to the Caltrans EWB FTP server.

In the installer, you will see a series of setup screens. Be sure to read and follow the instructions on each screen carefully. You will be asked to read and agree to a license agreement, choose a location in which to install the software, and choose or create the folder name for the program.

The first page of the Netscape Communicator Setup Program takes the user through a series of screens requiring a minimal amount of information to be completed by the user. At any time during the installation,
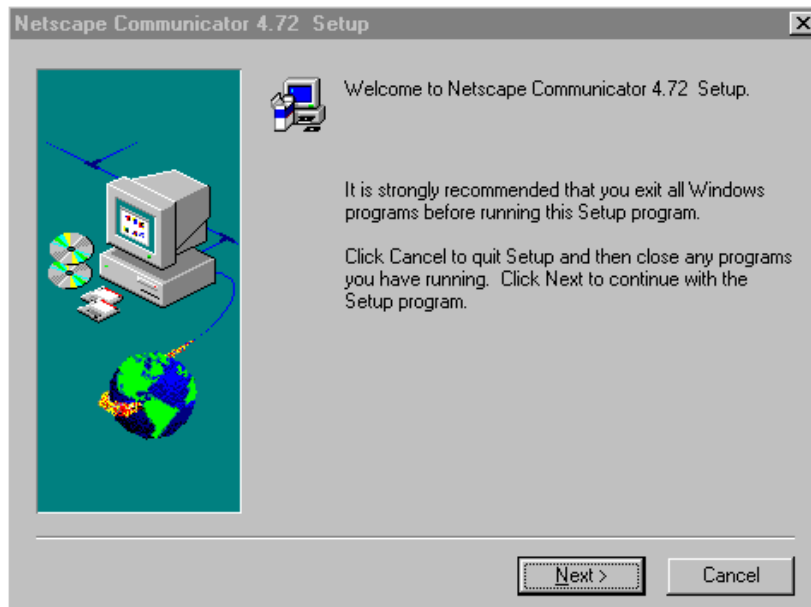
selecting the "Cancel" button will end the installation.

The next screen of the Setup Program allows the user to specify what type of setup they want to perform. The type of setup required for the EWB application is a "Typical" (default) setup. Select the radio button preceding "Typical" to install the most common options. If there is sufficient space available on the default

destination directory, use the default destination. If not, use the "Browse" button to navigate to a directory or drive with sufficient space. Select the "Next" button to continue.
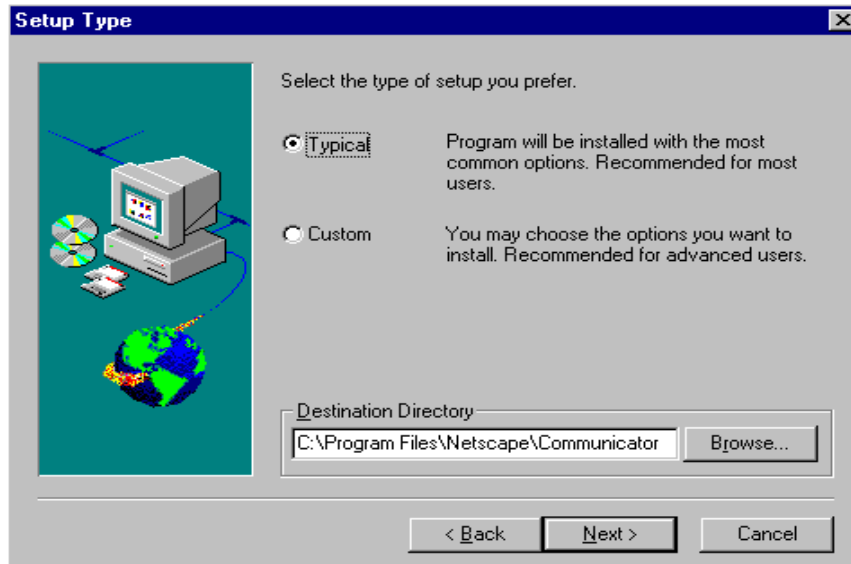
The Desktop Preference screen allows users to make Netscape the default browser and Netcenter the default home page. Typically, the only option that is selected is to "Make Netscape Communicator the default Internet browser". To select this option, click on the check box immediately in front of this option and select "Next" to continue.
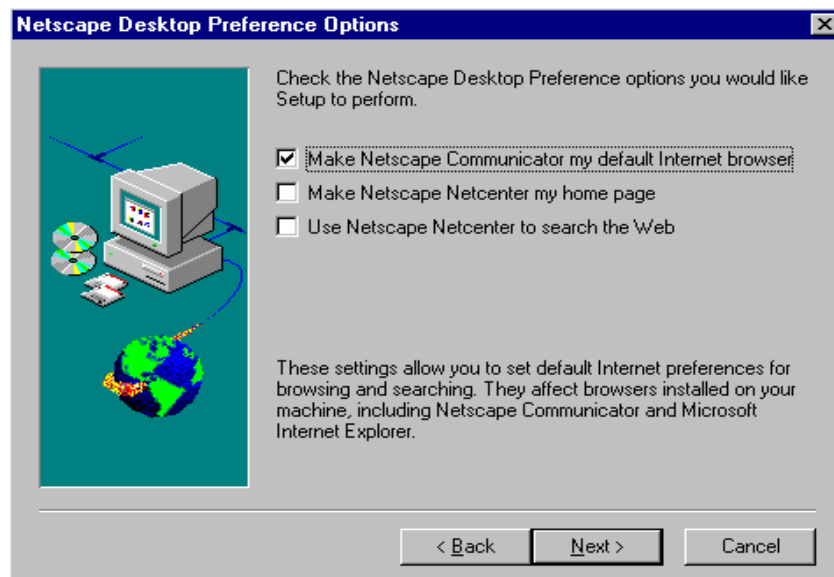
The last page of the installation program gives the user an opportunity to make a final review of all installation options selected. If the user wishes to make any changes to installation options, select the "Back" button to go back to previous screens to make changes. Once all installation options have been verified, select the "Install" button to start the actual installation process.
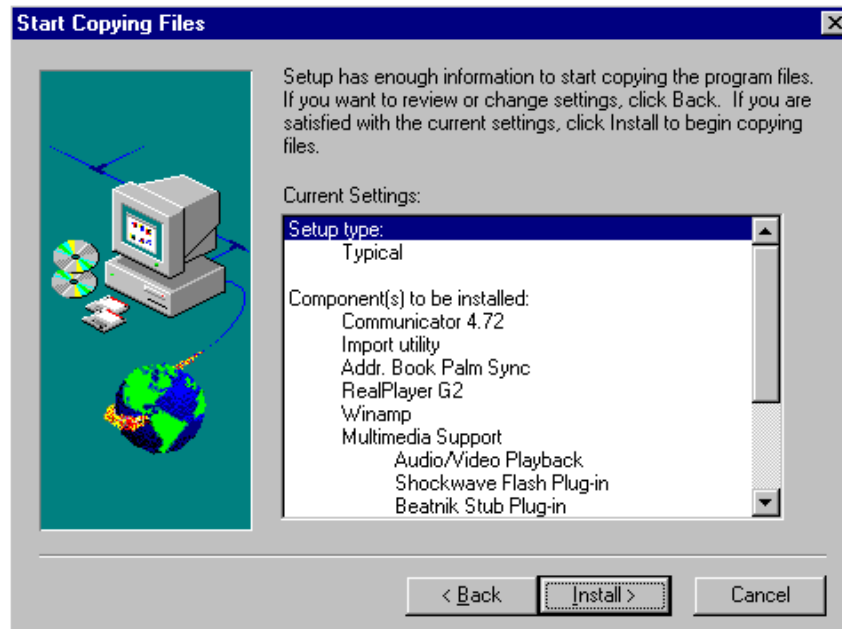
If all goes well during the final step of the install process, the next window that should appear is the workstation desktop. Once the Netscape browser software installation has been successfully completed, it is usually a good ideal (although not necessary) to restart the workstation.

This second part of the FTP instructions covers the process of using Netscape as the FTP client to transfer extra work bills electronically to the Caltrans EWB FTP server. Any FTP client software can be used to transfer extra work bill files to the EWB server. However, for the purpose of these instructions, Netscape Navigator will be used as the FTP client.

Step 4 - Verify the Network Connection

In order to use the FTP process, you will need TCP/IP access to the Internet (usually provided through a local Internet Service Provider or ISP). If you are uncertain whether your workstation has the correct TCP/IP Internet access, use the ping test to make sure it is working properly.

To verify that the workstation has access to the Caltrans FTP server via TCP/IP:

- From the Start/Run window, open PING 149.136.1.21;
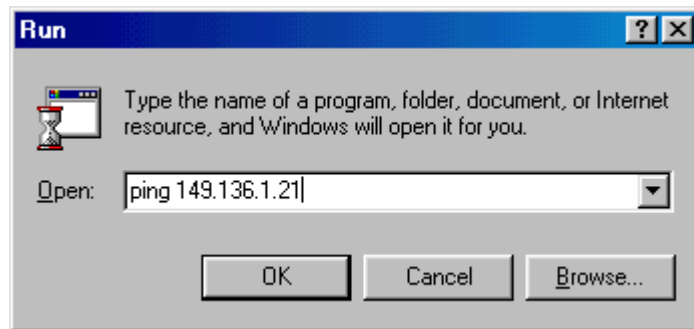
- Click <**OK**>

    If you get the following 'MSDOS ping" window with a **Reply from 149.136.1.21** message, then the workstation has correct access to the Caltrans EWB FTP server. If you have problems or questions, contact your local ISP.
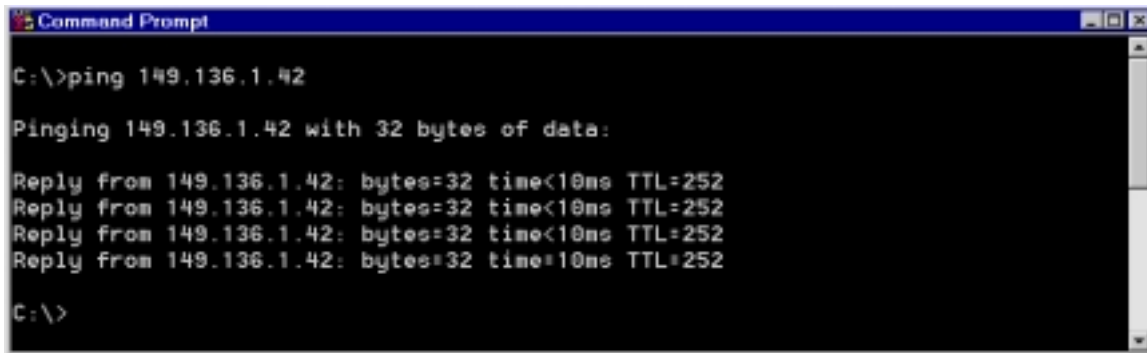
    Step 5 - Connect to the EWB FTP Server

    During the Netscape installation process, a Netscape desktop icon was automatically created and placed somewhere (usually in the lower leftmost corner) on the workstation desktop. After the workstation has been restarted (typically right after the Netscape software has been installed), simply double click on the Netscape Communicator icon (appearing on the lower left side of the workstation's desktop menu) to start the browser. An alternative is to use the Windows "Start Menu" button to navigate to the "Programs" menu then to the "Netscape Navigator" menu. In the "Netscape Navigator" menu is a "Netscape Communicator" icon.
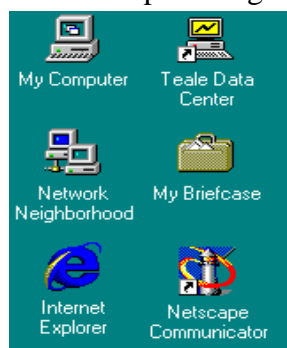
    Double click on the icon to startup the Netscape browser.

After starting the browser, the main Netscape browser window should appear. In order to logon to the EWB FTP server, the proper connect string must be typed into the one-line address dialog box labeled "Location" or "Netsite". In the address box, enter the following URL[1] (uniform resource locator):

ftp://**ewb001**@trftp.dot.ca.gov/

The **bold** part of the URL address represents a unique contractor company identification (ID) that has been specifically assigned by the Caltrans Construction program to each company. In order to obtain a contractor ID, you will need to contact the EWB Headquarters Help Desk (1-916-654-3885) to have an ID established for your company. Once you have been assigned a company logon ID, you will use that ID to logon to the FTP server and transfer EWB files to the FTP server. The same ID will also be used to logon to the FTP server to receive or download EWB status/error reports. These reports are typically generated the next day after submission and sent back to the same company directory.

Step 6 - Transfer EWB's to the Caltrans FTP Server

Once you have successfully established a connection with the FTP server, a password box will appear on the screen. A password will be assigned to each company. It is to be used by all users who transmit or view information for a specific company's extra work bills. The password will not display on the screen for security reasons. It will be represented by a series of asterisks.
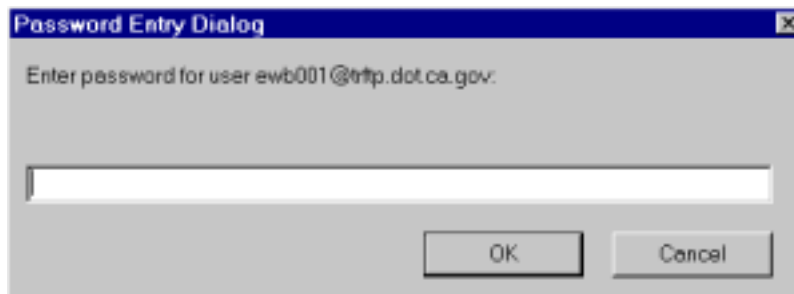

The password cannot be changed by the user. Contact must be made with the EWB Help Desk at Caltrans to implement a password change. In the event of and the need to change the password (such as departure of an

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[1] A uniform resource locator (URL) is an address for an Internet web site. The format is *http://* followed by the Internet address.

employee), contact the Caltrans EWB Headquarters Help Desk, (916) 654-3885, to request a change of the password.

After entering the contractor ID and password as required, the next screen will be a directory listing of all contractor files on the FTP server. The first time a user logs onto the FTP server, the only existing items listed will be two subdirectories etc/ and pub/. All EWB files transferred to the FTP server should be placed in the default home directory (current location after logging onto the server).
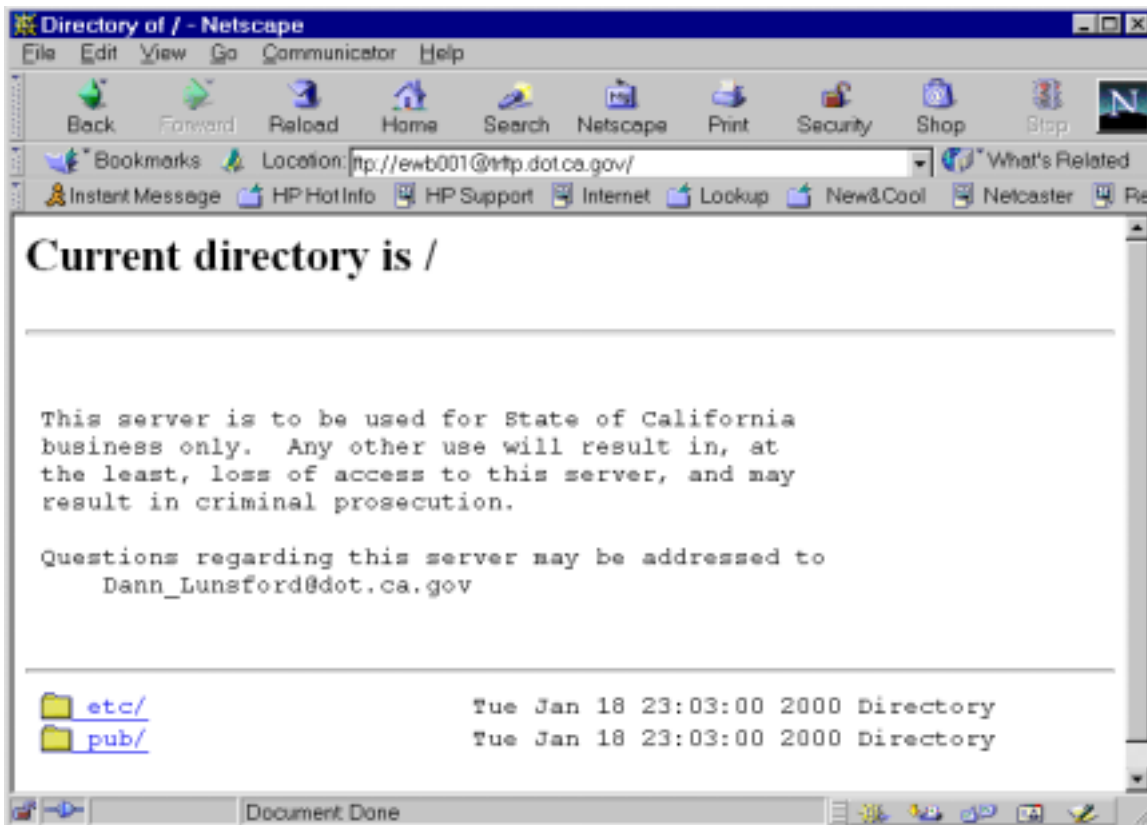

To initiate a file transfer, go to the main menu of the Netscape browser and select the <file> menu option. Halfway down the drop down menu will be an option called "Upload file". Highlight this menu option and press enter.
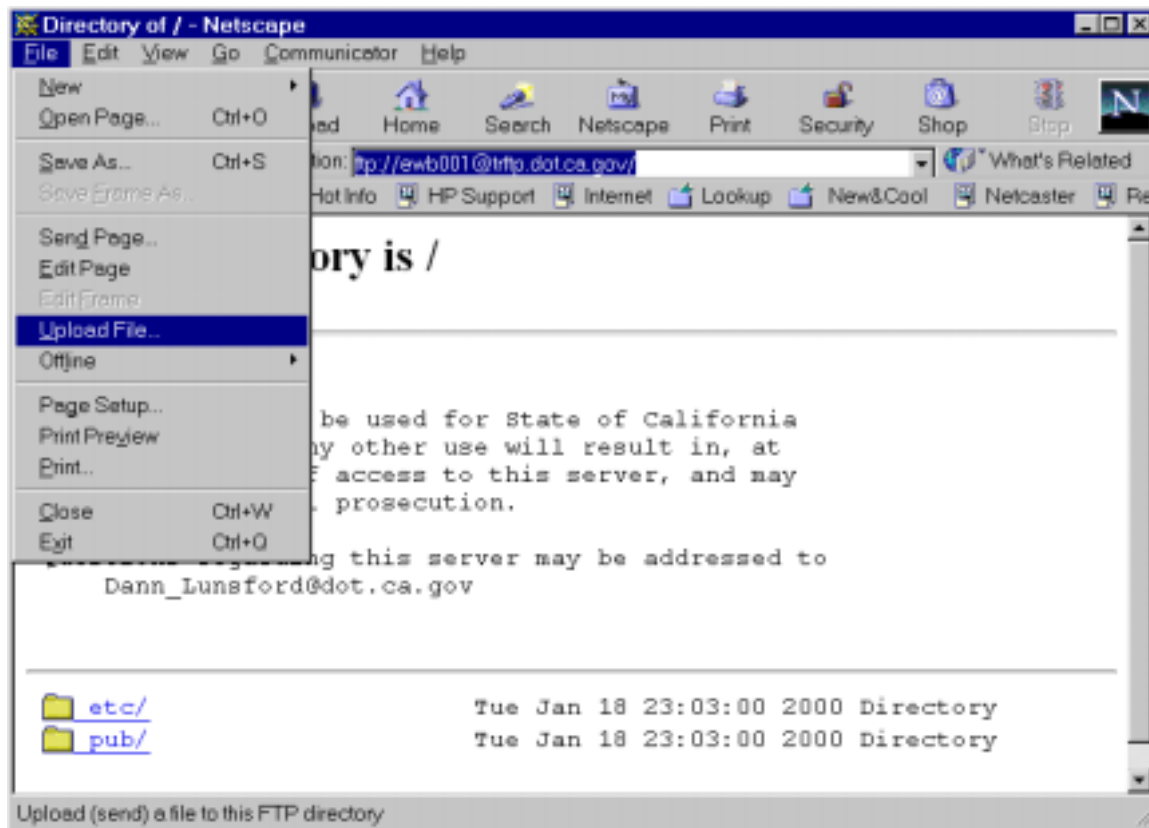
The next dialogue box will be a file navigation menu prompting the user to select the name of the file to be transferred. If the location of the file to be transferred is in the current directory, simply type the name of the file to be transferred or highlight the name of the file to be transferred in the directory listing, and press enter.
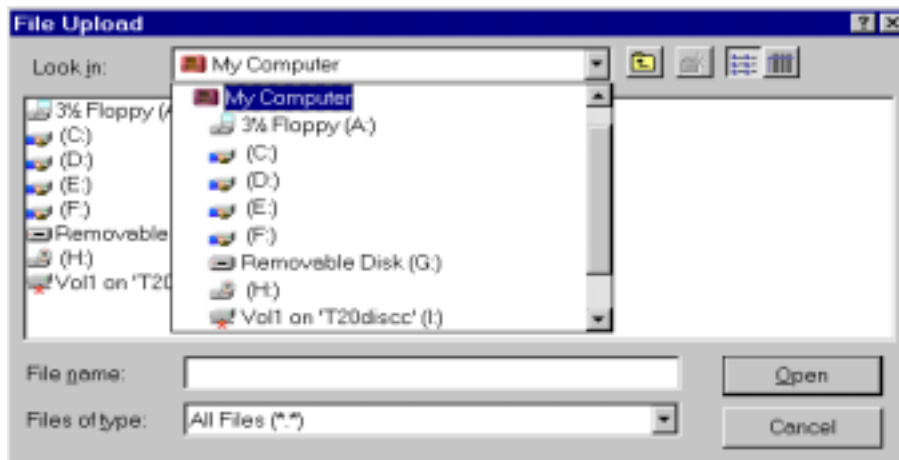
The type of files used for the file transfer process must be ASCII text files that have specific file formats. Any text editor or word processor can be used to create these ASCII files. Please refer to the Appendix to the EWB Release 1.0 User Guide to the document: EWB Data Dictionary to see a detailed description of file format.
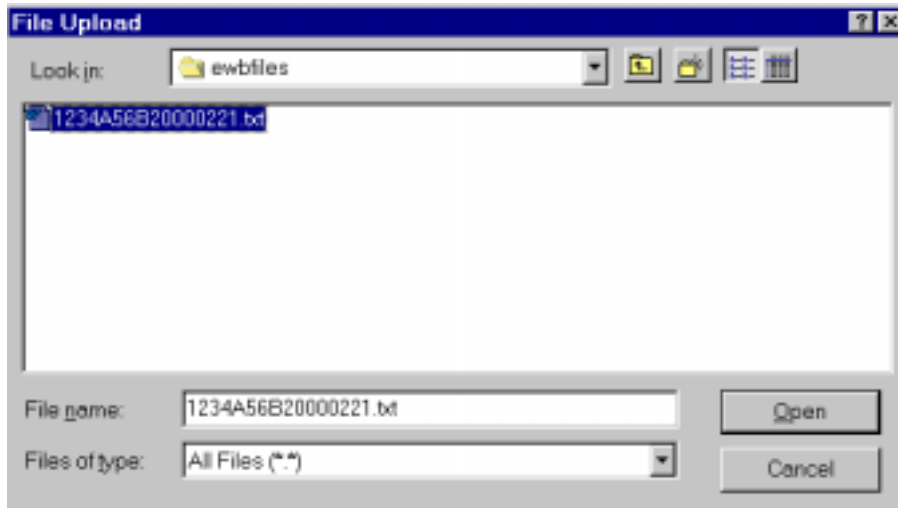

Once the EWB text file has been created, it should be placed in a directory that can be easily remembered. Once the EWB ASCII file has been located through the file browser menu, highlight the file name and press enter to select the file. Click <ok> to start the FTP process. An indicator bar will display the transfer status of the file. The file extension (three letters to the right of the period in the file name) will be **dat** (which represents that the file is a data file). If the FTP process fails, resubmit using the same procedure.
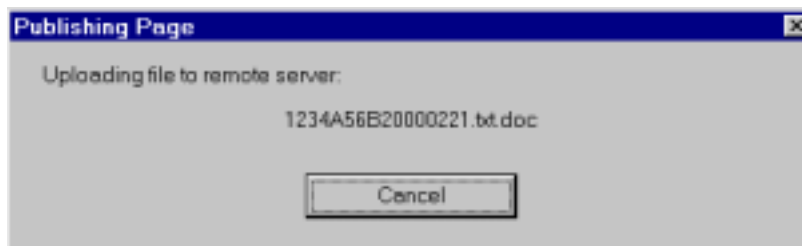

If all goes well with the file transfer process, the main Netscape browser window should re-appear showing an updated directory listing of all EWB files currently in the companies default file folder. The file that was just transferred to the FTP server should be displayed in the updated directory listing. **Once a day**, all uploaded EWB files will be processed and placed in the EWB database where they will be further processed for payment. Once the file has been moved to the EWB database, it will be removed from the FTP directory listing on the FTP server.

After the file has been uploaded to the EWB database, the recommended way to check further status of the bill is to use the EWB web-based application. Please refer to Step-by-Step instructions, which are part of the EWB Release 1.0 User Guide, for using the EWB web-based application to check the status of your EWB.
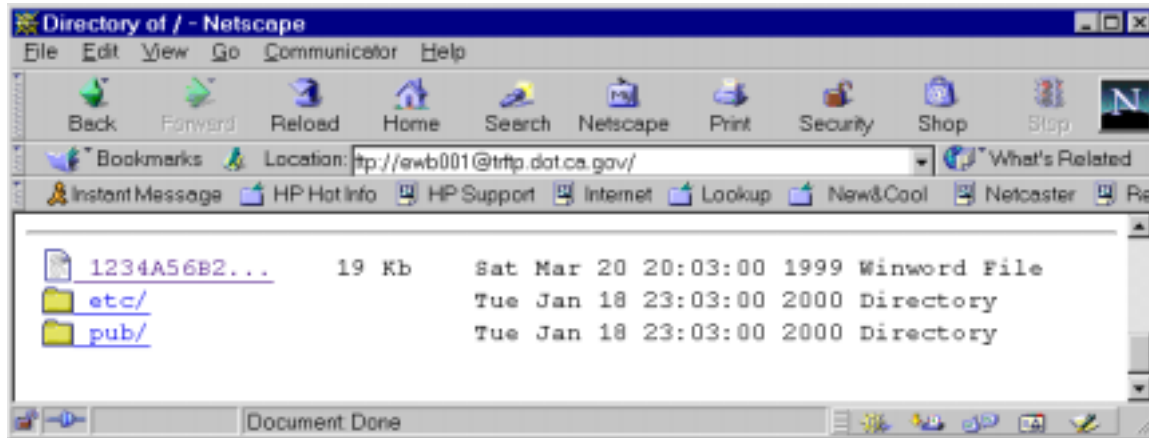
Step 7 – View EWB Error Reports from the FTP Server

Once the submission has been handled successfully, the status of the bill will be available through the EWB web-based application. However, if an error occurs with the EWB file sent to the FTP server, a report will be placed in that same directory (unique to your company) on the EWB FTP server. The report will be a word processing document with a file extension of **.txt**. (The file extension is the three-letter designation that follows a period in the file name.)
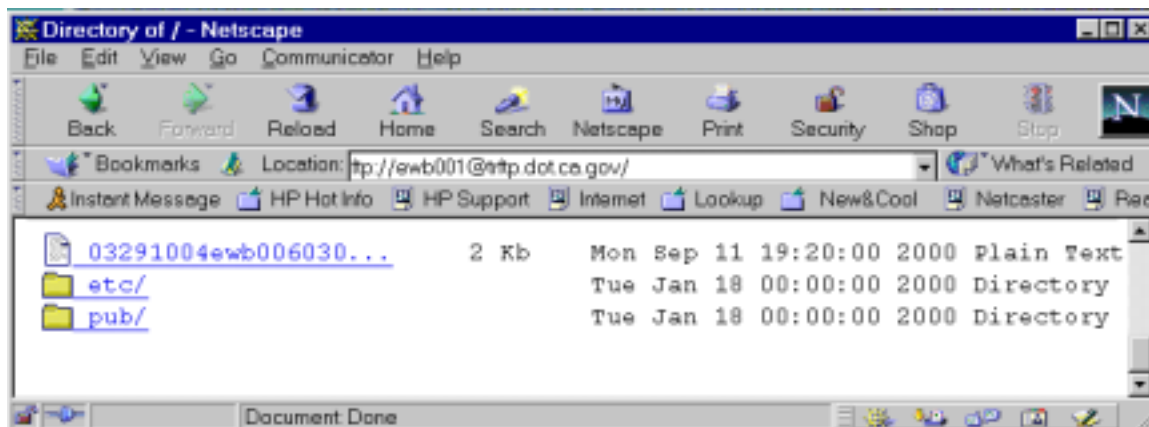
You may read the error report by connecting to the FTP server (Step 5), and clicking on the file on the screen to open it. The contents of the error report file will be displayed in the browsers main window. You can also print the contents of whatever is displayed on the browser screen by selecting file and print from the browser's main menu.
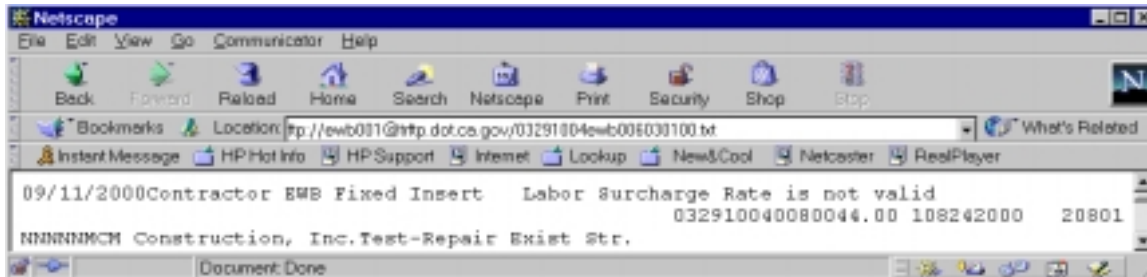

After opening the file, you may read and save it using the Save command under the Windows File Drop Down. A screen will give you the choice of opening the file and viewing it on-line using your workstation's default word processor (usually MS Word) or saving the file to disk. A second option is to save it without reading it by right clicking on the file, selecting "Save Link As" and entering the location to which the file should be saved. To download the file to your workstation's local disk drive, select the option "Save it to disk" and click <ok>.
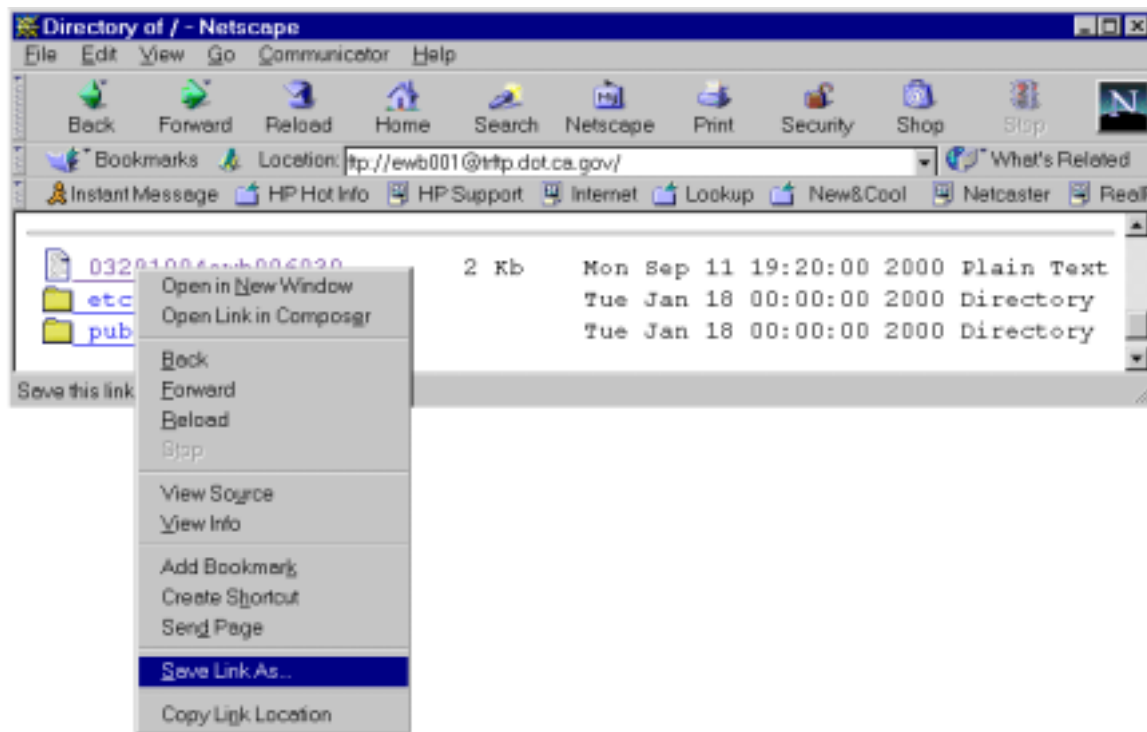
This menu allows the user to select the location on the local workstation where the error file will be downloaded. Use the top menu bar to navigate to the appropriate folder and hit <save>.
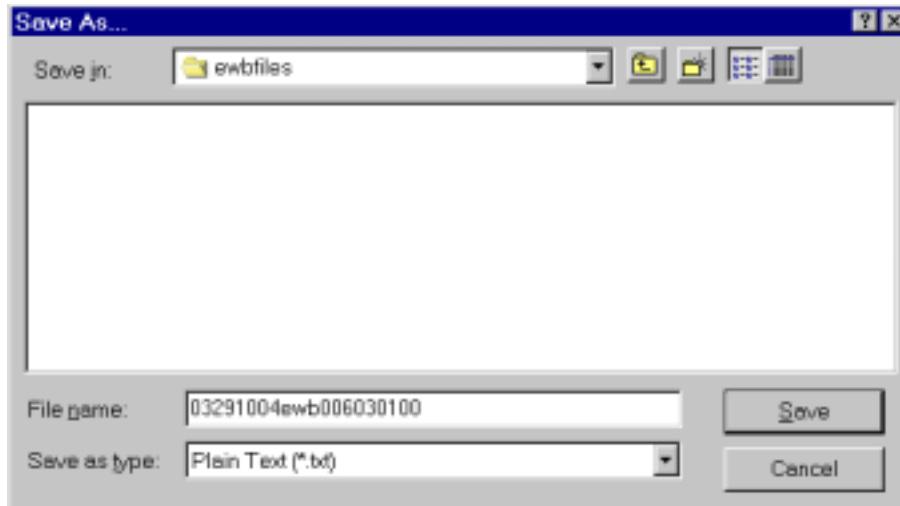
The file will now be located on your hard drive. Once the EWB FTP error report file has been downloaded to your local hard drive, the error report can be read using any standard Windows word processing or notepad application.
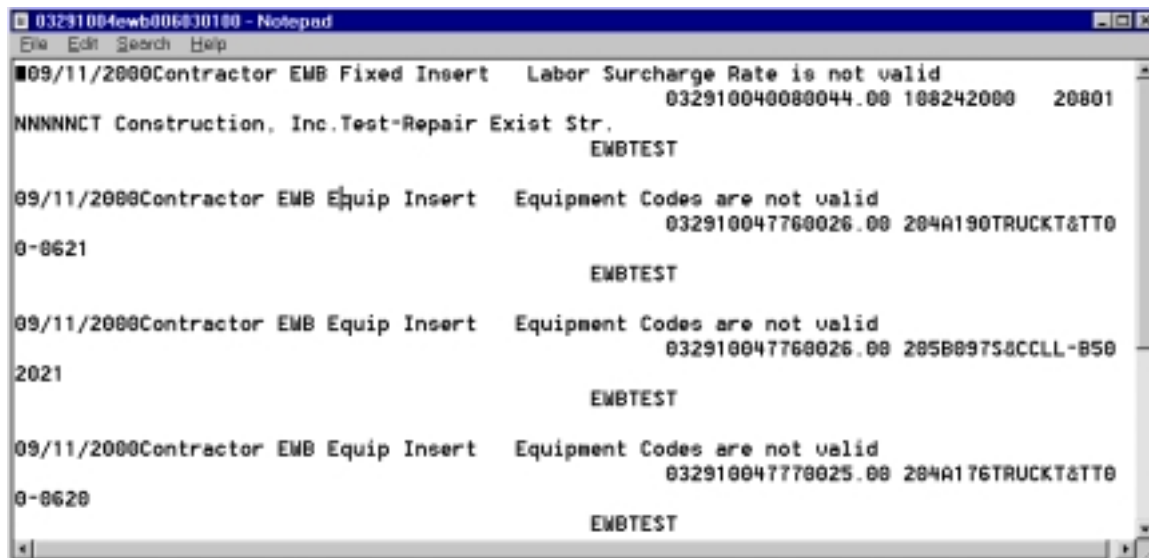
Once the contractor has had an opportunity to review the error messages, they can make corrections to the original EWB bill using any standard Windows word processing application or company billing system. Once the error(s) have been corrected, the contractor will be able to re-send the corrected bill to the EWB FTP server.

The format of the EWB FTP error report data is as follows:

```
EWB FTP Error Report File layout:
-------------------------------
ERROR_DATE                            DATE
ERROR_NUMBER                          VARCHAR(30)
ERROR_TEXT                            VARCHAR(100)
DISTRICT                              VARCHAR(2)
EA                                    VARCHAR(6)
CCO                                   VARCHAR(3)
CONTR_REPORT_NO                       VARCHAR(6)
CONTR_REVISION_NO                     NUMBER(2)
RECORD_TYPE                           NUMBER(1)
RECORD_DETAIL                         VARCHAR(150)
```

The format of the error report file name includes the contract number (Dist/EA), EWB FTP account name (EWB1-999), and the date which the file was created (mmddyy). All error reports will have a .txt file name extension. (The file extension is the three-letter designation that follows a period in the file name.)

```
Sample Error File Name:
-----------------------
11022124ewb002051200.txt
```

```
Sample Error File Content:
--------------------------
09/05/2000Contractor EWB Equip Insert   ORA-01400: cannot insert NULL into
("CMIS"."EWB_
EQUIPMENT_TEMP"."EQUIP_ID")                       110221440010059.00
204AIRCPPORT000-0
0480
                                    CALTRANSFTP


09/05/2000Contractor EWB Equip Insert   Equipment Codes are not valid
                                          110221440010059.00
20502-001T&TT00-0
610
                                    CALTRANSFTP



09/05/2000Contractor EWB Equip Insert   Reg Hours cannot exceed 8 per day
                                          110221440010059.00
21202-001TRUCKT&T
T00-06240
                                    CALTRANSFTP



09/05/2000Contractor EWB Equip Insert   OT Hours cannot exceed 16 per day
                                          110221440010059.00
21304-001TRUCKT&T
T06-12820
                                    CALTRANSFTP
```

```
09/05/2000Contractor EWB Equip Insert   No Fixed record found for this Equipment
EWB
                                                 110221440020042.00
20402-001TRUCKT&T
T00-0680
                                   CALTRANSFTP


09/05/2000Contractor EWB labor Insert   ORA-01400: cannot insert NULL into
("CMIS"."EWB_
LABOR_TEMP"."F_INITIAL")             110221440030061.00
434LBRAppleseed11
8.50000
                                   CALTRANSFTP


09/05/2000Contractor EWB labor Insert   Craft Id is not valid
                                                 110221440030061.00
436JBAppleseed318
.50000
                                   CALTRANSFTP


09/05/2000Contractor EWB labor Insert   OT Rate is required
                                                 110221440030061.00
440LBRJBAppleseed
006000
                                   CALTRANSFTP



09/05/2000Contractor EWB Fixed Update   ORA-02290: check constraint
(CMIS.PARTNER) viola
ted                                              110221440010055.00
108/31/2000   001
01NNNNPSample Construction Company, Inc.Partnering Switch Invalid
                                   CALTRANSFTP

09/05/2000Contractor EWB Fixed Update   ORA-02290: check constraint
(CMIS.RW_DELAY) viol
ated                                             110221440030054.00
108/31/2000   001
01NNNRNSample Construction Company, Inc.Right Of Way Delay Switch Invalid
                                   CALTRANSFTP

09/05/2000Contractor EWB Fixed Update   ORA-02290: check constraint
(CMIS.SUB_MARKUP) vi
olated                                           110221440030053.00
108/31/2000   001
01NNSNNSample Construction Company, Inc.Subcontract Switch Not Valid
                                   CALTRANSFTP

09/05/2000Contractor EWB Fixed Update   ORA-02290: check constraint
(CMIS.FLAGGING) viol
ated                                             110221440010052.00
108/31/2000   001
```

```
01NFNNNSample Construction Company, Inc.Flagging Switch Invalid
                                              CALTRANSFTP


09/05/2000Contractor EWB Fixed Update   ORA-02290: check constraint (CMIS.BRDGE)
violate
d                                            110221440010051.00
108/31/2000   001
01BNNNNSample Construction Company, Inc.Bridge Code Invalid
                                              CALTRANSFTP
```

End of FTP Instructions